REMARKS

Claims 1, 7-9, 11-15, 17, and 21-22 are now pending in this application. Claims 3, 4, 10, 16, and 18-20 are cancelled herein. Claims 2, 5, and 6 are previously cancelled. New claims 21-22 are added. Claims 1, 3, 4, and 7-17 are rejected. Claims 1, 12, and 14 are amended herein to clarify the invention. Claims 8, 9, and 11 are amended to address informalities unrelated to substantive patentability issues.

Applicant respectfully submits that, upon entry of the subject amendment, the application will be in condition for allowance. Applicant, thus, respectfully requests consideration of the above amendment and remarks.

Support for Amendments

Claim 1 is supported at the least by original claims 1, 3, 4, and 10, and in the specification at page 15, lines 3-6, and at page 19, lines 10-15.

The amendments to claims 12 and 14 are supported at the least by original claim 1.

New claim 21 is supported at the least by original claims 2, 5, and 6, and by Figs. 1G and 5.

New claim 22 is supported at the least by Figs. 5, 6, 12, 13 and 17; and the specification at page 14, lines 10-12, at page 15, lines 3-6, and at page 19, lines 10-15.

Section 112 Rejections

Claims 1, 3-4, and 7-17 are rejected under 35 USC 112, second paragraph as being indefinite. The grounds cited by the Examiner are directed to the "serial/parallel connection circuit ..." The recitation of a "serial/parallel connection circuit ..." has been deleted. Withdrawal of the section 112 rejections are requested.

Art Rejections and the Cited Art

Claims 1, 3, 7-10, and 16 are rejected under 35 USC 103(a) as being unpatentable over Nakata '545 (USP 6,204,545) in view of the Alvi article and Freundlich (SUP 6,150,604), as evidenced by Nath (USP 4,773,944). Claim 4 is rejected under USC 103(a) as being unpatentable over Nakata '545 in view of the Alvi article and Freundlich, and further in view of Ishikawa (USP 6,355,873). Claims 11-17 are rejected under USC 103(a) as being unpatentable over Nakata '545 in view of the Alvi article and Freundlich, and further in view of Nakata '1858 (WO/2004/001858). Claims 12-13 are rejected under USC

103(a) as being unpatentable over Nakata '545 in view of the Alvi article and Freundlich, and further in view of Alivisatos et al. (US Patent Pub. No. 2003/0226498). Claims 12-13 are rejected under USC 103(a) as being unpatentable over Nakata '545 in view of the Alvi article and Freundlich, and further in view of Alivisatos et al. and Wegleiter et al. (USP 6,531,405).

Nakata '545 discloses a semiconductor device, including an embodiment as a solar battery having a plurality of spherical semiconductor elements. The Examiner cites Nakata '545 as disclosing a laminated solar battery. Such finding is respectfully traversed.

Although Nakata '545 disclose plate-type modules, **there is no suggestion that such modules are laminated layers in a laminated structure, nor buried integrally inside a common transparent synthetic resin material.** Laminate, as defined by in the Merriam Webster online dictionary is to unite layers of material by an adhesive. The Free Online dictionary defines a laminate as a material made by bonding two or more sheets or layers.

As previously remarked upon, Nakata '545 discloses a case having storage cavities into which the spherical elements are placed, (Col. 6, line 6, lines 37-42; Col. 8, lines 31-36, lines 62-66; Col. 9, lines 14-15; Col. 25, lines 1-3). The Nakata '545 case is formed using a construction in which two sheet materials are joined at the surface, (Fig. 26, Col. 25, lines 56-63). The storage

cavities are formed in the materials, (Col. 25, lines 1-3). Accordingly, the Examiner's finding that Fig. 26 shows a first layer of a laminated structure formed by two left side arrays, and a second layer of a laminated structure formed by two right side arrays is respectfully traversed. It is respectfully submitted that Nakata '545 does not disclose solar cell modules incorporated as an integrally laminated structure in which the solar cell modules are consecutively layered. It also is respectfully submitted that Nakata '545 does not disclose a plurality of cell group modules buried integrally inside a common transparent synthetic resin material.

Alvi discloses a photovoltaic system using different types of solar cells.

Freundlich et al. disclose an indium-gallium-arsenide p-i-n photovoltaic cell modified by insertion of strained quantum wells.

Nakata '1858 disclose a light emitting or receiving device having wire members 4 fastened to a fastening plate 1. A opening part 5 and projecting strips 6 are formed in the plate 1. The strips have grooves for fastening positive pole and negative pole wire members 4a, 4b. The Examiner cites Nakata '1858 as disclosing spherical solar cells forming solar cell modules in the shape of a cylinder.

Ishikawa discloses spherical shaped solar diodes in a panel assembly including wire mesh to secure the diodes and electrically contact one electrode of each diode.

Alivisatos et al. disclose a photovoltaic device incorporating a thin film, including inorganic semiconductor nanocrystals dispersed in a semiconducting polymer.

Wegleiter et al. disclose a light-emitting diode in which a GaAsP layer is applied to a GaP substrate.

The Claims Distinguished

Claim 1 distinguishes over the cited art based at least on the following claim limitations:

- A laminated solar battery, comprising:

- different types of solar cell modules ... each configured generally in a form of a layer, said solar cell modules being incorporated as an **integrally laminated structure** ...;

- wherein **said plurality of cell group modules are buried integrally inside a common transparent synthetic resin material**; and

wherein **each one lead of said pair of first leads of each one of said solar cell arrays has an extended portion extending outside said synthetic resin material**.

It is respectfully submitted that the cited art does not disclose a laminated solar battery in which the plurality of cell group modules are buried integrally inside a common transparent synthetic resin material. It also is respectfully submitted that the cited art does not disclose such a laminated solar battery in which each lead of each solar cell array extends out of the resin material.

Claims 7-9, 11-15, 17, and 21-22 ultimately depend from claim 1, and distinguish over the cited art based at least on the same reasons as given for claim 1.

Claim 22 further distinguishes over the cited art based at least on the following claim limitations:

- wherein **a portion of each one lead ... is buried inside said common synthetic resin material**, wherein **said buried portion is in physical and electrical communication with each one of the plurality of spherical solar cells of said one solar cell array,** and wherein said each one lead extends through said common synthetic resin material from **a first extended portion outside the common synthetic resin material at one end** of said one lead to **a**

second extended portion outside the synthetic resin material at an opposite end of said one lead.

It is respectfully submitted that the cited art does not disclose a pair of leads for each solar cell array that are buried within the common resin material with the solar cells of the array, and that are in contact with each cell of the array. It also is respectfully submitted that the cited art does not disclose such leads that each have one end outside the resin material, that each extend through the resin material to make such physical and electrical communication, and that each extend out the resin material at another end.

REQUEST FOR EXTENSION OF TIME

Applicant respectfully requests a one month extension of time for responding to the Office Action. **The fee of $75 for the extension is provided for in the charge authorization presented in the PTO Form 2038, Credit Card Payment form, provided herewith.**

If there is any discrepancy between the fee(s) due and the fee payment authorized in the Credit Card Payment Form PTO-2038 or the Form PTO-2038 is missing or fee payment via the Form PTO-2038 cannot be processed, the USPTO is hereby authorized to charge any fee(s) or fee(s) deficiency or credit any excess payment to Deposit Account No. 10-1250.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited.

Respectfully submitted,

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